

Claims

1. Device for manufacturing cushions filled with a medium from synthetic pre-processed tubular foil, to which device flexible pre-processed tubular foil is supplied in a supply direction, in which the flexible pre-processed tubular foil is supplied in flat condition, in which the pre-processes tubular foil has a first and a second longitudinal edge opposite each other, said device being provided with introduction means for introducing a medium, with cutting means for making a cut in the pre-processed tubular foil only and at least near the first longitudinal edge of the foil, the introduction means being elongated and insertable in the pre-processed tubular foil through the cut made by the cutting means for abutment of the introduction means against the part of the first longitudinal edge that is not yet cut, and with sealing means for sealing the pre-processed tubular foil in longitudinal direction and between the introduction means and the second longitudinal edge for sealing off the cut made by the cutting means.
2. Device according to claim 1, in which the introduction means is formed by a tube having an opening, for instance a slit or holes, for introducing the medium into the pre-processed tubular foil, which opening preferably faces away from the first longitudinal edge.
3. Device according to claim 2, in which a tube is positioned for extending in upstream direction, past the first longitudinal edge, within the tubular foil.
4. Device according to any one of the preceding claims, comprising means

for pulling the first longitudinal edge taut.

5 5. Device according to claim 4, in which the means for pulling the first longitudinal edge taut are adapted for setting the tubular foil at an obtuse angle in the area immediately upstream of the sealing means.

10 6. Device according to claim 5, in which the means for pulling the first longitudinal edge taut also comprise a supply roll or holder shaft for it that is positioned oblique with respect to the transport direction of the tubular foil at the location of the sealing means.

15 7. Device according to claim 3 and claim 4, 5 or 6, in which the tube is part of the means for pulling the first longitudinal edge taut and comprises two portions that are at an obtuse angle to each other.

8. Device according to claim 7, in which the obtuse angle is approximately 175 degrees.

20 9. Device according to claim 7 or 8, in which the obtuse angle in the tube is buckle-shaped.

25 10. Device according to claim 6, 7 or 8, in which the tube in a downstream portion of the obtuse angle is provided with the discharge opening(s).

11. Device according to claim 3 or 10, in which the cutting means is positioned immediately downstream of the discharge opening(s).

30 12. Device according to any one of the preceding claims, in which the cutting means is positioned at the location of the upstream end of the sealing means.

13. Device according to any one of the claims 1-11, in which the cutting means is positioned at a distance downstream of the upstream end of the sealing means.

5 14. Device according to any one of the preceding claims, in which the pre-processed tubular foil is provided with spaced apart transverse seals, each transverse seal extending from the second longitudinal edge up to a distance from the first longitudinal edge.

10 15. Device according to any one of the preceding claims, in which the pre-processed tubular foil is provided with repetitive series of a number of consecutive and spaced apart transverse seals, in which each transverse seal extends from the second longitudinal edge up to a distance from the first longitudinal edge, in which at a distance from a last transverse seal of
15 the series a triplet is situated of consecutively and spaced apart from each other a transverse seal, a row of perforations, which row extends from the first to the second longitudinal edge, and a transverse seal, the distance between a transverse seal and the row of perforations of the triplet being smaller than the distance between the neighbouring transverse seals of the
20 number of transverse seals.

16. Device according to any one of the preceding claims 1, 2, 3 or 14, in which furthermore perforation means are provided for arranging a row of perforations, which row extends transverse to the supply direction.

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17. Series of cushions filled with a medium manufactured by a device according to any one of the preceding claims from synthetic pre-processed tubular foil, in which seen in cross-section each cushion comprises:

- a second closed off longitudinal edge,
- 30 - a first cut-through longitudinal edge formed by two ends situated opposite it, and
- a longitudinal seal situated between the first and the second

longitudinal edge, the medium being situated between the longitudinal seal and the second longitudinal edge.

5 18. Series of cushions according to claim 17, in which the cushions are separated one from the other by a transverse seal.

19. Series of cushions according to claim 17 or 18, in which the cushions are separated one from the other by a row of transverse perforations.

10 20. Cushion filled with a medium manufactured by a device according to any one of the preceding claims 1-16 from synthetic pre-processed tubular foil, in which seen in cross-section each cushion comprises:

- a second closed off longitudinal edge,
- a first cut-through longitudinal edge formed by two ends situated
15 opposite it, and
- a longitudinal seal situated between the first and the second longitudinal edge, the medium being situated between the longitudinal seal and the second longitudinal edge.

20 21. Pre-processed tubular foil provided with a first and second longitudinal edge opposite each other and spaced apart transverse seals, in which each transverse seal extends from the second longitudinal edge up to a distance from the first longitudinal edge.

25 22. Pre-processed tubular foil provided with a first and a second longitudinal edge opposite each other and repetitive series of a number of consecutive and spaced apart transverse seals, in which each transverse seal extends from the second longitudinal edge up to a distance from the first longitudinal edge, in which at a distance from a last transverse seal of
30 the series a triplet is situated of consecutively and spaced apart from each other a transverse seal, a row of perforations, which row extends from the first to the second longitudinal edge, and a transverse seal, the distance

between a transverse seal and the row of perforations of the triplet being smaller than the distance between the neighbouring transverse seals of the number of transverse seals.